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HABITUAL CONSTIPATION.

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THE prompt and thorough evacuation of the bowels is universally recognized as a fundamental principle in the treatment of disease. The clinician, frequently finding it necessary to make use of this therapeutic principle in the treatment of acute disease, may very readily acquire the habit of permitting or suggesting the use of a daily cathartic for the relief of a constipation which is evidently habitual. Such a tendency may be excused on the ground that for this complaint the public demands laxative drugs, and that the habitual use of the milder laxatives is often harmless and efficacious. In a measure this is true; but this form of palliative therapy would be less commonly called for and allowed were the curability of the complaint more widely and full appreciated. I firmly believe that in a large proportion of instances the causative factor or factors are discoverable and removable; and the results on the general health and comfort of the patient justify whatever time and trouble are required. Practically it may be unwise to urge much investigation or radical treatment of chronic

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constipation upon those who are perfectly satisfied with the relief obtained from the occasional or daily laxative, and with the state of their general health. I am, however, firmly convinced that we should seriously urge the advisability of making attempts at cure when laxatives afford unsatisfactory or gradually failing relief, when fecal stasis is suggested in spite of apparently satisfactory defecations, and when the underlying cause of the constipation is found to be a condition which in itself is detrimental to health and efficiency.

At the outset we must free our minds of the idea that for habitual constipation there is a universal panacea, any therapeutic procedure from which we may hope for success unless it meets the demands of the individual case. It is true that from certain bizarre forms of diet an abnormal fluidity may be given to the stools, or the intestines whipped up to temporarily better action. Carrying such a plan far enough we may be able to secure an actual diarrhea, and such a result is not uncommon from the exaggerated diets sometimes adopted by these sufferers. By a cure, it seems to me, we should understand a restitution of normal bowel movements on a reasonable mode of life and dietetic regimen. Such a cure is only to be accomplished by the accidental or intelligent removal of the conditions responsible for the failure of function.

The phenomena which accomplish the passage of the food residue through the colon and from the body should be separated into two groups or classes. There are really two different mechanisms. The movements of the colon down to the sigmoid are reflex in their nature, and entirely beyond the consciousness of the individual. The

stimulus to simple contraction arises from the chemical irritation of the intestinal contents upon the mucosa, and the stretching of the viscus by these contents, be they solid, liquid, or gaseous. In this portion of the colon the immediate centers are in the musculature itself. The coördination of contraction and relaxation which we speak of as peristalsis is traceable to centers in the spinal cord. Abnormalities of action may arise as an effect of exaggerated emotional states, the impulses being transmitted through the sympathetic system.

The lower sigmoid and upper rectum is the collecting reservoir of the feces, entirely comparable to the urinary bladder. States of fullness give rise to appropriate sensations, and these to the desire to empty the bowel. The carrying out of this desire is, under normal conditions, subject to conscious control. Without voluntary effort, through the increase of intraabdominal pressure and the relaxation of sphincters it is almost impossible for the rectum to void its contents if these contents are naturally formed. The centers which preside over the musculature of this portion are entirely spinal and under the control of the higher consciousness unless abnormally stimulated.

The clinical study of constipation must involve the determination of the site of failure, that is, which mechanism is at fault, and the reason for the discovered failure. The determination of these facts involves, very often, the most thorough investigation and continued observation. Only in this way may we hope to avoid overlooking the more infrequent morbid lesions the cure of which depends on prompt recognition. The clinical history gives us the leading line of inquiry, and, carefully taken, makes possible a working compromise

between ideal completeness and the demands of a busy life. It is not alone to the history of the complaint that we must give painstaking consideration but also to the study of the life and habits of the individual patient in the hope of discovering any possible etiological factors responsible for the complaint.

Other things being equal in the course of physical examination the greatest stress is laid on the study of the condition of the colon itself. This involves the palpation of its separate parts and the study of the position, size, condition, and fullness of these parts. The value of direct examination of the lowermost end of the colon cannot be exaggerated, for through this examination we settle the important question as to the site of stasis.

The examination of the lower bowel is carried out somewhat as follows: The patient is instructed to use no cathartic on a given day, and the following morning to attempt, as usual, to move the bowels. Digital exploration of the rectum is then made and this is followed by a proctoscopic and sigmoidoscopic examination with a proper speculum. If the mechanism of defecation is faulty the rectum or lower sigmoid is found to contain normally soft feces in sufficient quantity. If the trouble is higher up the rectum and lower sigmoid will be practically empty; the character of what is there often gives important indication of the conditions higher up. These examinations inform us as to the cause of any discovered failure of the defecation mechanism, the size of the cavity is estimated, as is the condition of the musculature, the state of the mucosa, and any obstruction from surrounding parts or the muscles of the pelvic floor, including the anus.

The study of the color, form, and consistency of the stools as passed and as removed through the examining tube often gives valuable information. Chemical and microscopical examination of the feces sometimes demonstrates a disease of the upper bowel which otherwise would be overlooked. The time of passage of the feces, carmine having been given with a particular meal, is of great moment in determining fecal stasis.

The study of the gastric contents may be indicated by the clinical history, but need not be made a part of the routine in the study of habitual constipation. While constipation is frequently a complaint in those suffering from gastric disturbances it does not follow that it is due to the alteration of gastric secretion. Other coincident factors are more probably responsible, or possibly, the gastric disease is really due to constipation. This, I believe, is a very frequent occurrence.

Clinically it is convenient to divide cases of habitual constipation into two main groups depending upon the mechanism at fault. Each of these main groups is then divided into types or classes depending upon the apparent predominance of an etiological factor. Such a classification is useful in description and simplifies the practical institution of treatment. No confusion need be caused by the combination of these conditions in the individual case, as appropriate treatment for each may be instituted if required.

1. *Disturbances of Defecation.*—The clinical history of patients afflicted with a failure of the mechanism of defecation is often in itself suggestive. Dietetic cures and alterations in the mode of life have failed to give results unless the stools

have thereby been made very soft. The lower bowel at a certain time of day, at least, feels full, but evacuation cannot be accomplished. Enemas, even though small in amount, are effective to a degree. Without such stimulation or softening there is almost absolute inability. Final conclusions are reached through rectal examination both as to the fact of failure here, and the cause of such failure. These causes may be grouped as follows:

Neurotic Types.—In the course of the distinct neurasthenic psychoses constipation may be a prominent complaint and the real causes of such complaints are several. Amongst the actually neurasthenic and those slightly nervous individuals who are in most respects normal the constipation is often due to disturbances of defecation rather than to disturbances of the mechanism above. Defecation is inhibited, the feces are seen to be normal, and the mechanism cannot be said to be faulty. In some cases the inhibition seems to be due to fear or anxiety that the bowels will not move; or that they will not move in the short time allowed before taking up the duties of the day. Sometimes the inhibition resembles the disturbance of micturition such as is observed when the physician asks for a specimen of the urine. Life insurance examiners notice this inability to empty the bladder on request particularly if the applicant is closely watched and therefore excited. Sometimes the inhibition is due to the association of defecation with experience of pain accompanying defecation when the painful condition of the rectum has been cured. An anal muscle which is somewhat tight and must be overcome by considerable effort causes quick discouragement.

Not to attempt an elaboration of this interesting theme at the present time, it may be said that these cases are many and the results of treatment good unless the psychopathy is too pronounced. Whether frankly so or not the treatment is largely suggestive. One may advise a number of simple measures, preferably a routine of measures before defecation is attempted. Habit is very important. In part because of its suggestive value, local rectal treatment, such as gradual anal dilatation, is often serviceable.

Failure of the Muscles of Defecation.—Among women who have borne many children or, for other reasons, suffered great stretching of the abdominal muscles, constipation is often exceedingly obstinate. The trouble is found to be in the mechanism of defecation, in the lack of any assistance in evacuation. Only by proper exercise can these muscles be brought back to their normal state, but the very severe deformities are practically hopeless. I have seen exercises carried out for months with the greatest seriousness but with very little effect. We must be content to keep the feces in as soft a state as necessary on its entrance into the rectum by diet and the like and aid defecation by a tight binder about the abdomen on which the pressure of the depressed diaphragm may be brought to bear, or by having the patient assume the squatting posture during defecation, making the thighs apposed to the belly do the work of the muscles.

Rectal Types.—As a result of continual resistance of the desire of defecation, thus allowing large masses of feces to accumulate in the rectum, the rectum loses its sensibility, and the walls their tone; a large cavity is developed as is shown by the ballooning when the tube is introduced. It

sometimes happens that this condition can be traced to the custom of taking large enemas of water while in a sitting posture, a method of treatment of constipation for which a patented apparatus is used. These cases are exceedingly stubborn, but the treatment which gives some chance of success is the establishment of regularity of attempt at defecation, increase of the strength of the accessory muscles, increasing the bulk of the feces by proper diet, and, finally, the lavage of the rectum with small quantities of cold water.

Much the same in effect are the pelvic tumors, uterine displacements, and injuries of the muscles of the perineum from severe labor. These conditions demand surgical relief.

Anal Abnormalities.—Fissures of the anus and hemorrhoids are common causes of constipation, partly because of the pain which they occasion during defecation and partly because of the induced spasm of the anal sphincter which cannot be voluntarily relaxed.

Constricted or spasmodic sphincters without local lesions frequently cause constipation. This is very apt to be observed among the stronger members of society who have no other complaint. It sometimes is possible to trace this abnormality to the habit of resisting the desire to defecate. The individual, possibly a physician, a teacher, or business man rushes off to work after breakfast thinking to move the bowels later in the day. Solids and gases press on the rectum and with much effort the sphincter is gripped hard for hours to avoid unpleasant accidents. The muscles of protection become hypertrophied beyond the power of the expulsive mechanism. The sphincter is found to be broad and thick. These cases are to be cured only

by anal stretching, divulsion, or actual division of the fibres by incision. Regularity of habit then prevents a recurrence.

2. *Disturbances of Colon Peristalsis.*—These cases are recognized through proctoscopic examination, the discovery of the empty rectum, and through careful palpation of the colon when cathartics have for a time been interdicted. The rectum may contain a small amount of fecal material and this may indicate whether we have to deal with atony or spasm above. The wall of the sigmoid as high as it can be seen may give useful indications of conditions above. It is a mistake to suppose that in a given case we are dealing either with spasm or atony, for the apparent atony may be due to conditions without the bowel or to failure of stimulation, just as spasm my be due to temporarily excessive irritation. A large proportion of cases that one might be tempted to class as atonic or spastic bowels are bowels which have not reached any definite abnormal state; normal power is there, lacking merely the necessary work to call it into activity, or the necessary stimulation to make it, promptly and efficiently, take up the work offered.

Dietetic Types.—The underfed make up a considerable proportion of the constipated. In large part this class is made up of women. Because of lack of appetite, lack of time or money or real or fancied digestive disturbances these patients eat very little. Sometimes they drink tea excessively. which stimulant they take in place of food. Possibly the tea may be a factor in the constipation; usually this is not the case. These patients are often thin, somewhat anemic and frequently very neurotic. It is natural that the bowels should not move on such a diet as we find, on study, is habitu-

ally taken. It is really not the constipation which must be treated, but the starvation. It is very easy to overlook this type, but the results, when treatment is properly carried out, are most gratifying. Even when the constipation is of years' duration good results may be obtained. The course of forced feeding must be insisted upon most firmly and carried out scrupulously. Constipation in enteroptotics is frequently of this type. In another class it cannot be said that an insufficient diet has been ingested but rather that an improper diet is habitually taken. An aversion is felt for all but the most refined foods; all fruits, vegetables, and fats are eaten sparingly. Meat, eggs, well cooked potatoes, and fine breads constitute the entire dietary. They are apt to be better in summer and worse in winter. The normal stimulants are lacking, as is learned from the history, but the diagnosis is settled by making a test by diet. A certain amount of fruit, for example, or agar-agar is ordered and the result watched. The treatment is obvious in principle but in practice often difficult to establish unless the most rigid instructions are given as to the amount and kind of food which should constitute the diet. Schmidt, who first suggested the use of agar-agar, apparently found that it was not efficacious in a sufficiently large proportion of cases, apparently, so that to it he added cascara. I can see no particular reason for elation over the addition of this mixture to the list of cathartics.

Sedentary Types.—The fat and flabby, sedentary, and overfed sometimes suffer from a constipation due to a faulty colon peristalsis. The constipation may be explained in various ways but personally I have usually found little satisfaction in treating

these patients for constipation unless they can be made to recognize the necessity of a fundamental change in their mode of life. Graduated but, finally, moderately hard out-of-door exercise is preferable, but a systematic course of resistance exercises accomplishes good results. The fact of constipation is almost secondary in its importance; the change in habits is demanded by the dangers of the primary condition.

Enteroptotic Types.—Constipation among those with enteroptosis is exceedingly common. Superficially considered it might seem that it was always due to atony of the colon and to angulation at various points. As has been said, however, the constipation is often due to insufficient feeding and on the other hand sometimes to deficient defecation. If the failure is evidently in the colon and there is a severe grade of ptosis it may be justified to consider angulation as a factor. There are cases which do well with a properly fitting abdominal support which otherwise continue to complain of constipation. Main reliance is always to be placed in the improvement of nutrition and the increase of fat by a period of rest in bed, and forced feeding. Complete cure of these cases is obtained only by long-continued adherence to hygienic principles and life in the open air, as the real difficulty is a well developed fundamental disturbance of nutrition.

Colon Atony.—The term atonic constipation should be limited to those cases in which there is evidence that the colon is actually atonic. Such a condition may be due either to essential weakness of the musculature of the bowel or an abnormality of the nervous mechanism resulting in diminished irritability to normal stimulants. The term should be reserved for those cases which fail to respond

to the stimulus of a normal food residue. It should be demonstrated that the defect is not in the mechanism of defecation but in the colon peristalsis. I believe that true atonic constipation is far less common than we have been in the habit of thinking. The diagnosis is rarely to be made unless the constipation has been long standing or there has been a recently operative etiological factor, such as a depleting disease or accident. Long-continued and severe catharsis by reducing the normal irritability of the bowel seems sometimes to be responsible for an atony. The positive diagnosis is made through study of the character of the stools, the careful palpation of all parts of the colon, the estimate of its contractility under manipulation, and the study of the upper sigmoid by the aid of the inflating electric sigmoidoscope. Diagnosis sometimes can only be made from long observation. The general treatment of this form of constipation consists in the correction of the mode of life, the proper arrangement of the diet and the betterment of the disturbances of the general health. Locally the attempt is made to improve the nutrition, strength, and irritability of the bowel wall. During treatment it may sometimes be necessary to allow small and diminishing doses of cascara three times daily, before meals. Massage of the colon, if done by someone who can actually palpate the large bowel, is a most useful measure. The professional operators are apparently taught to massage along the course of the bowel and the result is that they do little more than rub the skin. It is of no importance to push contents onward a trifle, but rather we must manipulate the bowel wall directly with the fingers. This can best be done when the fingers are held trans-

versely to the long axis of a given portion so that the segment is rolled under the fingers. I believe this should be done either by the physician or under his immediate instruction. Massage must be kept up for some time if actual results are to be obtained. Oil enemas in some cases work well, and again are of no use whatever. We can best account for this on the supposition that in certain cases irritation results in spasm of certain sections of the bowel too small or too inaccessible to be discovered. In all cases the oil may be of temporary benefit, but in cases in which there is no spasm whatever the effect ceases on discontinuance.

Spastic Types.—Habitual constipation due to spastic contraction of a smaller or larger section of the colon is not at all infrequent. The condition is observed most commonly in the neurotic, in those who have abused cathartic remedies, and in those who have made it a practice to take foods which are irritating to the intestinal mucosa. The exaggerated laxative diet is thus seen to be harmful in a certain proportion of cases. The diagnosis is made by elimination of failure of the mechanism of defecation, the discovery of fecal balls or small calibered stools in the rectum, the history of the passage of such feces, and through the palpation of the colon. It is easy to confuse the spastic bowel, a hard cordlike body the size of the finger, with the normal empty bowel: this is a matter of experience. Many of these patients have pain in various portions of the bowel, and the association between spastic constipation and colica mucosa is close. The recognition and proper treatment of spastic constipation is exceedingly important. Measures useful in other forms of constipation are not beneficial or may even aggravate the

trouble, cathartics do not as a rule give even temporary satisfaction. The underlying neurotic conditions are always to be carefully considered and treated more or less radically as indicated, either by psychotherapy, change of environment, or enforced rest. The diet must be made abundant but free from irritants. To this end it is well to use those vegetables which contain large amounts of cellulose, but not fermentable substances, or those which leave a hard residue. Fats are to be taken in as large amounts as can be borne. It is best to start these patients on a strictly milk diet, and after a week change this to a milk and cereal diet, later instituting a full mixed diet, six meals a day, but one that is not irritating.

Oil enemas are of the greatest value. The oil, either a pure olive or sesami, is injected into the rectum and retained over night; the amount of ten ounces is ordered every night for a fortnight and then every other night for an equal time; the further continuance is determined in the individual case. To those who have no one to call upon for assistance in taking these enemas, the enemator devised by me a few years ago is an almost absolute necessity. Aside from the indications of the individual case two drugs are efficacious in treatment. I refer to liberal doses of bromide and adequate doses of atropine. Combined with other treatment, these two are of great service in relieving part of the discomfort at the outset.

Catarrhal Cases.—While it is not within the province of this paper to discuss catarrhal inflammation of the bowel, in view of the frequency with which the chronic form supervenes upon long continued constipation and the use of purgatives it is necessary to make more than passing mention of

it. Contrary to what is frequently supposed, such a form of chronic catarrh causes or keeps up a chronic constipation, chronic diarrhea being the exceptional phenomenon unless there is ulceration of the bowel. Those afflicted with catarrh usually suffer much from intestinal flatus and irregular pains along the course of the colon, referred to other organs. Sigmoidoscopy may give an indication of the catarrh above. The stools show mucus in varying amounts. The diet in these cases must be full and unirritating, very much the same as for the spastic form of constipation, to which the catarrh frequently leads. Massage is of value when there is no developed spasm. Intestinal lavage is of far more value in these cases, in my experience, than enemata of oil.

The brief presentation of such an important subject as this lays one open to criticism. Certain aspects of the subject have necessarily been omitted or mentioned too briefly. The treatment of the subject has been suggestive and synoptic throughout. Particular stress has purposely been laid on the classification of cases and the clinical points which from personal experience seem to me most useful in the recognition of these different classes. If we fully appreciate the diversity of causes of constipation we are less apt to expect a panacea and we are more apt to realize that failure in treatment is due to failure in diagnosis. I doubt that the future holds much in the way of new therapeutic procedures in the treatment of this complaint, but I believe that success will be expected through the insistent application of present therapeutic principles in accurately selected cases.

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